



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0540; Directorate Identifier 2012-NM-185-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes. The existing AD currently requires repetitive inspections for wear damage and cracks of the fuselage skin in the interface area of the vertical stabilizer seal and fuselage skin, a detailed inspection for wear damage and cracks of the surface of any skin repair doubler in the area, and corrective actions if necessary. For airplanes on which the fuselage skin has been blended to remove wear damage, the existing AD also requires repetitive external detailed inspections or high frequency eddy current inspections for cracks of the blended area of the fuselage skin, and corrective actions if necessary. Since we issued that AD, we have received a report of wear through the fuselage skin that occurred sooner than the repetitive inspection interval specified in the existing AD. This proposed AD would reduce the repetitive inspection interval and change certain corrective actions. We are proposing this AD to detect and correct wear damage and cracks of the fuselage skin in the interface area of the vertical stabilizer seal and fuselage skin in sections 46 and 48, which could cause in-flight depressurization of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6432; fax: 425-917-6590; email: Bill.Ashforth@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0540; Directorate Identifier 2012-NM-185-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On June 19, 2009, we issued AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), on the products listed above, which superseded AD 2002-26-15, Amendment 39-13003 (68 FR 476, January 6, 2003). AD 2009-14-02 requires repetitive inspections for wear damage and cracks of the fuselage skin in the interface area of the vertical stabilizer seal and fuselage skin, a detailed inspection for wear damage and cracks of the surface of any skin repair doubler in the area, and corrective actions if necessary. For airplanes on which the fuselage skin has been blended to remove wear damage, AD 2009-14-02 also requires repetitive external detailed inspections or high

frequency eddy current inspections for cracks of the blended area of the fuselage skin, and corrective actions if necessary. AD 2009-14-02 resulted from reports of skin wear damage on airplanes with fewer than 8,000 total flight cycles. Additionally, there were three reports of skin wear damage on airplanes on which Boeing Material Specifications (BMS) 10-86 Teflon-filled coating was applied (terminating action per AD 2002-26-15). We issued AD 2009-14-02 to detect and correct wear damage and cracks of the fuselage skin in the interface area of the vertical stabilizer seal and fuselage skin in sections 46 and 48, which could cause in-flight depressurization of the airplane.

Actions Since Existing AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009) Was Issued

Since we issued AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), we have received a report of wear through the fuselage skin between body station (STA) 2598 and STA 2638, stringers S-2L to S-3L. The wear developed in less than 3,657 flight hours since the previous inspection, which was less than the repetitive inspection interval specified in AD 2009-14-02. The wear occurred through both the Teflon filled coating and the full thickness of the 0.050-inch-thick skin to create a hole approximately 16 inches in length.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for Docket No. FAA-2013-0540.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

Although this proposed AD does not explicitly restate the requirements of AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), this proposed AD would retain certain requirements of AD 2009-14-02. Those requirements are referenced in the service information identified previously, which, in turn, is referenced in paragraphs (g) and (h) of this proposed AD. This proposed AD would reduce the repetitive inspection interval and add rub strip installation for airplanes with wear or blend that exceeds structural repair manual limits. This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under “Differences Between the Proposed AD and the Service Information.”

The phrase “corrective actions” is used in this proposed AD. “Corrective actions” are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

We have also clarified the applicability in paragraph (c) of AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), which specifies “Boeing Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2478, Revision 1, dated March 27, 2008.” The effectivity of that service information lists all Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes. Therefore, the applicability of this proposed AD specifies “all The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category.”

Differences Between the Proposed AD and the Service Information

Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011, specifies certain optional economic-based actions. This proposed AD would not require those actions.

Costs of Compliance

We estimate that this proposed AD affects 917 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection [retained actions from existing AD 2009-14-02, Amendment 39 15951 (74 FR 30919, June 29, 2009)]	12 work-hours X \$85 per hour = \$1,020	\$0	\$1,020	\$935,340
Inspection and application of BMS 10-86 Teflon-filled coating [retained actions from existing AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009)]	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$623,560 per inspection cycles

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do

not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), and adding the following new AD:

The Boeing Company: Docket No. FAA-2013-0540; Directorate Identifier 2012-NM-185-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009).

(c) Applicability

This AD applies to all The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted a report of wear through the fuselage skin that occurred sooner than the previous repetitive inspection interval. We are issuing this AD to detect and correct wear damage and cracks of the fuselage skin in the interface area of the vertical stabilizer seal and fuselage skin in sections 46 and 48, which could cause in-flight depressurization of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Detailed Inspection

At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011 (the effective date of AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009) is August 3, 2009), except as specified in paragraph (j)(1) of this AD: Do a detailed inspection of the fuselage skin and any skin repair doubler surface for wear damage and cracking at the vertical stabilizer seal interface, apply Boeing Material Specifications (BMS) 10-86 Teflon-filled coating, and do all applicable corrective actions, except as specified in paragraph (j)(2) of this AD, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. Do all applicable corrective actions at the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. Repeat the detailed inspection thereafter at intervals not to exceed the applicable repetitive interval specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478,

Revision 3, dated October 17, 2011, except as specified in paragraph (j)(2) of this AD. The effective date of AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009) is August 3, 2009.

(h) Repetitive High Frequency Eddy Current (HFEC) Inspections

For airplanes on which the skin is blended forward of station 2360 without external reinforcement: At the applicable compliance time specified in Table 4 in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011, do an external surface HFEC inspection of the blended area of the fuselage skin and the surface of any repair doubler for cracks, apply BMS 10-86 Teflon-filled coating, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. Do all applicable corrective actions at the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. Repeat the HFEC inspection thereafter at intervals not to exceed the compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011. The effective date of AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009) is August 3, 2009.

(i) Optional Terminating Action

Installation of CRES rub strips in accordance with Boeing Service Bulletin 747-53-2721, Revision 2, dated March 17, 2011, except as specified in paragraph (j)(3) of this AD, is terminating action for the inspections specified in paragraphs (g) and (h) of this AD at the locations of the CRES rub strip installations only.

(j) Exceptions to Service Information

(1) Where Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011, specifies a compliance time after the "Revision 3 date of this service

bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Part 3 of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011, is not a requirement of this AD.

(3) Where Boeing Service Bulletin 747-53-2721, Revision 2, dated March 17, 2011, specifies to contact Boeing for a modification or for instructions: Before further flight, contact the FAA for instructions using a method approved in accordance with the procedures specified in paragraph (l) of this AD, and accomplish those instructions.

(k) Credit for Previous Actions

(1) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if the corresponding actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-53A2478, Revision 1, dated March 27, 2008; or Boeing Service Bulletin 747-53A2478, Revision 2, dated July 15, 2010; which are not incorporated by reference in this AD. As of the effective date of this AD, only Boeing Alert Service Bulletin 747-53A2478, Revision 3, dated October 17, 2011, can be used.

(2) This paragraph provides credit for the actions specified in paragraph (i) of this AD, if the corresponding actions were performed before the effective date of this AD using Boeing Service Bulletin 747-53-2721, dated May 28, 2009; or Revision 1, dated June 24, 2010; which are not incorporated by reference in this AD.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the

Related Information section of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Installation of CRES rub strips approved as AMOCs for AD 2009-14-02, Amendment 39-15951 (74 FR 30919, June 29, 2009), are approved as AMOCs for this AD.

(m) Related Information

(1) For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6432; fax: 425-917-6590; email: Bill.Ashforth@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on June 14, 2013

Jeffrey E. Duven,
Acting Manager
Transport Airplane Directorate,
Aircraft Certification Service.

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